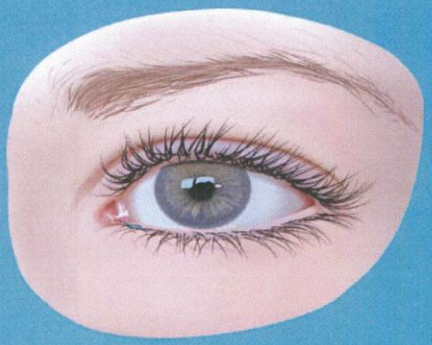
OPHTHALMOLOGY

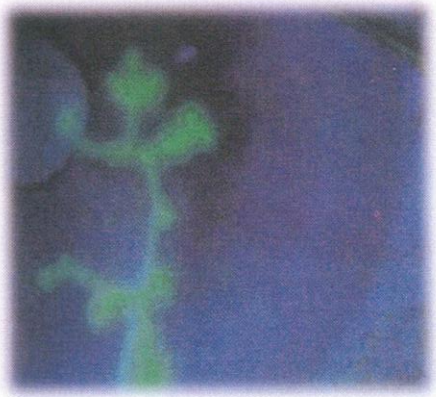


Adam's Clinical cases

DR: ADAM MOHY

Case 1: cornea

A 5 year-old boy with history of **atopy** was recently started on **prednisone** for a flare up of his eczema. His mother brought him in because his **right eye is red and painful**. He had similar episode during last summer's vacation on the beach with his family. The right eye is injected. Staining of the cornea with fluorescein shows a dendritic pattern



Clinical features Immunosuppressive state
Recurrent & Painful (dull aching pain)
Typical dendrite that stains with **fluorescein**
Corneal sensation → **Hyposthesia**

Q1: What is your diagnosis ?

- **Herpetic Corneal Ulcer (Dendritic Ulcer) (HS . Keratitis)**

Q2: what is the causative organism ?

- Herpes Simplex Virus

Q3: What dye you used for Staining this Cornea & Mention another dye?

- Fluorescein 2% → stains bed (dead cells)
- Rose Bengal 1% → stains Margin (Degenerated cells)

Q4: Mention the clinical characteristics of the dendritic ulcer?

- Dendretic pattern
- Recurrent e' Hyposthesia
- Superficial & non-vascularized
- Heal without residue (opacity)

Q5: Enumerate Other Morphological patterns in this Condition?

- *punctuate → Striate* (linear) → *Stellate → Dendritic* e round knobs *→Amoeboid → Geographic*

Q6: His colleague advised him to use dexamethasone phosphate ED (Topical steroid) Do you recommend this treatment?

- No → as it may cause amoeboid ulcer or perforation

Q7: Mention the predisposing factors of the condition?

- Fever - Stress - over exposure to UVR
- Immunosuppressant drugs

Q8: Mention 3 lines of medical ttt for this ulcer?

- Atropine → most important line of ttt
- Antiviral → Acyclovir (Zovirax) 3% EO 5 times/day
- Vitamins , Hot fomentation , Patching

Q9: Mention 3 Methods of surgical inference ?

- Debridement
- Cauterization → tincture iodine 7.5 % or absolute Alcohol
- Lamellar Penetrating Keratoplasty → for resistant cases

Q10: Mention DD of that case?

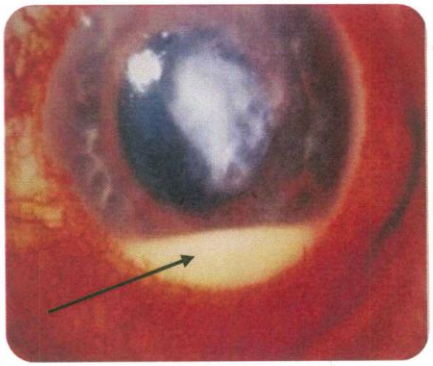
- from other corneal ulcers (bacterial- fungal - protozoal)
- from other causes of red painful eye (acute cong glaucoma-conjunctivitis-iridocyclitis)
- from other types of pain (**throbbing**: edoph- stye- hrd int) (**burning** : conjunctivitis)

Q11: Enumerate complications of this condition?

- 2ry glaucoma - 2ry bacterial infection - Ant uveitis

Case2: Cornea

A 60-year old woman came to the emergency department of ophthalmic center complaining of the sudden development of a **painful red right** eye. She had no previous episodes of a similar nature



Hypopyion
Sterile Pus (no organism) in the Bottom of AC
origin : Exudates from iris
composition : fibrin + iris pigments + Polymorphs

Q1: What is the most Probable diagnosis ?

- Bacterial Corneal Ulcer (Hypopyion)

Q2: Enumerate the predisposing factors of this condition ?

- **A**brasion(Traumatic) as rubbing lash
- **B**lepharitis
- **C**L wear & Chronic Conjunctivitis
- **D**ry eyes & Dacryocystitis
- **E**xposure & Loss of sensation

Q3: What is the Causative organism of this dse?

- **Typical HU** → Pneumococci (80%)
- **Atypical HU** → *Strept, Staph & Pseudomonas*

Q4: Mention one Simple clinical test to confirm your diagnosis?

- Fluorescein test

Q5: What does the Black arrow point to on the Picture ?

- Hypopyion

Q6: Mention another similar disease with the same Signs?

- Iridocyclitis

Q7: Two days later ocular pain relieved , AC became flat, Cornea fused with the Iris , What is the cause of this changes?

- Perforation

N.B ✈ Tension (IOP) after perforation ✈ Zero
✈ The ulcer Ch' by: Central, Serpiginous has 2 edges: Advancing & healing edges

Q8: Enumerate 3 Complications of this condition ?

- Iridicyclitis + 2ry glaucoma d2 hypopyion
- Fistula & Descematocele ✈ Rare
- Perforation
- Corneal Opacity ✈ dense (leucoma)

Q9: What is the DD of this Condition?

- from other corneal ulcers (bacterial- fungal - protozoal)
- from other causes of red painful eye (acute cong glaucoma- conjunctivitis-iridocyclitis)
- from other types of pain (**burning** : conjunctivitis)

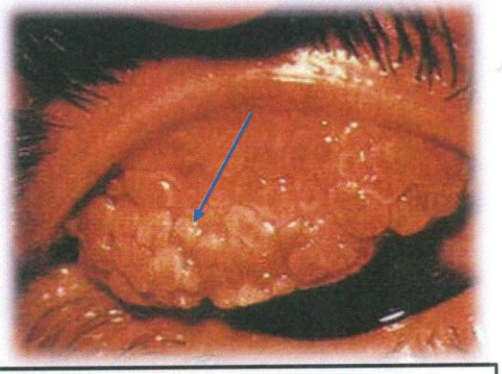
Q10: What is the proper treatment for this case?

- **General** →Atropine , Vitamin , Patching &Hot fomentations
- **Specific** → Topical broad spectrum antibiotics (Ciprofloxacin 0.3%)

Complications of perforation: بسكال	Treatment of complication: خرم
PAS Secondary glaucoma. Corneal fistula. Complicated cataract. Ant. staphyloma. Leucoma adherent. Epithelialization. **Endophthalmitis**: most dangerous	Debridement داب Cautery إلحمه keratoplasty رقعه Tissue adhesive glue الصقه Tarsorrhaphy وديه رفا

Case 3: Spring catarrh

A 22 years old patient came to the outpatient clinic complaining of **burning sensation and itching**. The condition started since early childhood (5years old),with gradual onset, intermittent relapsing course. Both eyes are affected equally. Associated symptoms: redness, viscous ruby discharge, lacrimation, photophopia. The condition increased in summer and spring With relative improvement in winter & autumn. No systemic history of any general diseases.
Examination of the eye revealed **Follicles** in the upper eye lid.



Q1: What is the most Probable diagnosis ?

- **Vernal kerato-conjunctivitis (Spring catarrh)**

Q2: Mention 2 other causes of that conjunctival lesion (Papillae)?

- Papillary Trachoma
- Giant Papillary Conjunctivitis

Q3: Mention 2 Signs can be seen at the cornea of that patient ?

- Pannus → Vernal
- Corneal Ulcer
- Punctate Epithelial Keratitis

Q4: What is pannus & Mention its DD?

- Superficial vascularization & Diffuse infiltration by chronic inflammatory cells
- **DD**
  - Trachomatous – Phylectenular – Leprotic - Degenerative

Q5: Mention the characteristic Cells Seen at Pathological Examination?

- Eosinophils
- **N.B** → White spot concentrations of Eosinophils + Necrotic Epithelium may be seen (Tranta Spots)

Q6: Enumerate 2 *Possible Clinical Signs?*

- Large flat-topped papillae give a **cobblestone appearance** on tarsi
- Sticky milk white film of discharge rich in **eosinophils** on lid eversion

Q6: He improves partially with ttt then he discontinued ,then the condition recur & he started using the ttt & neglected visiting the Ophthalmologist , then He presented e' diminution of vision d2 Optic Atrophy (Tension 38 mmhg)

- **What is the Expected Cause ?**
  - Use of Corticosteroids

Q7: What does the blue arrow Point to on the picture?

- Large flat-topped Papillae (**Cobblestone Appearance**)
  - they affect mainly the upper Tarsus

Q8: Enumerate 3 Complications of that case?

- Superficial Punctate Keratitis
- Vernal Corneal ulcer
- Pseudo-gerontoxon (C. Opacity Arcus senillis like picture)
- KeratoConus

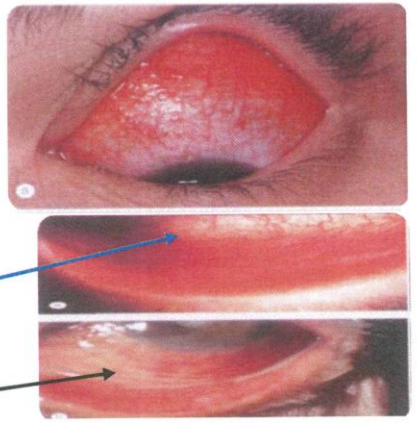
Q8: What is the proper treatment for this case?

- **Symptomatic ttt:** Dark glasses & anti-histaminic drops
- **Mast cell stabilizers:** Disodium chromaoglycate
- **Topical Steroids:** Only in severe irresponsive case.
- **Resistant case: Beta irritation.**

Case 4: Conjunctiva

A 50-year-old male complaining of red eyes. He woke up with the lids stuck together . No history of pain or photophobia or itching. Visual acuity of both eyes 6/6 .

Examination showed discharge in the inferior fornix of each eye; Bulbar conjunctiva showed injection more pronounced towards the fornices and less near the limbus, conjunctival odema .
No preauricular lymphadenopathy. Ocular tension 14mmhg in both eyes



Q1: What is the most Probable diagnosis ?

- Mucopurulent conjunctivitis (MCP)

Q2: What is the Causative organism of this dse?

- Haemophilius Aegypticus (koch-week's bacillus): cause epidemics in April 5th, 9th, 10th ms
- Staphylococci, streptococci and Pneumococci.

Q3: What does the Blue arrow Point to on the picture?

- Conjunctival injection (Red Eye)

Q4: What does the Black arrow Point to on the picture?

- Mucopurulent Discharge (mucous, tears, leucocytes and serum)

Q5: Mention the Complications of this condition ? & how to confirm it ?

- Corneal ulcers, usually superficial crescentic and marginal.
- Confirmed by Fluorescein test

Q6: What is the DD of this Condition?

- From other causes of red eye
- From other types of conjunctivitis
- From Ulcerative Blepharitis

Q7: What is the fate of this case?

- Spontaneous cure within 2 weeks or After treatment

Q8: Enumerate 3 predisposing factors of this dse?

- Bad hygiene as dirty fingers
- Flies اهم واحده
- Dirty towels

Q9 What is the proper Management for this case?

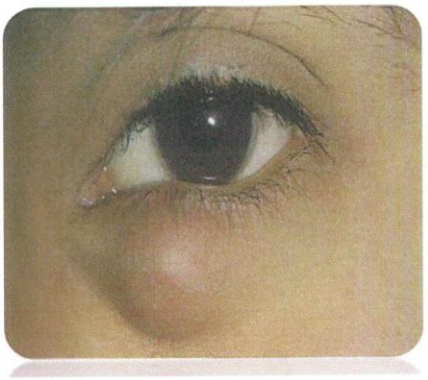
- A. Prevention:
  1. Combact files and good personal hygiene.
  2. Protect fellow eye in unilateral cases.
  3. Patient must use separate towel.
- B. Treatment:
  1. Frequent washing boric acid lotion 4%
  2. Hot famentations.
  3. Antibiotics local & systemic (in sever cases)
  4. Antibiotic ointment as Tobramycin at night:
     a. Long acting effect
     b. Prevents gluing of lashes.
     c. Allow systemic free exit of discharge.

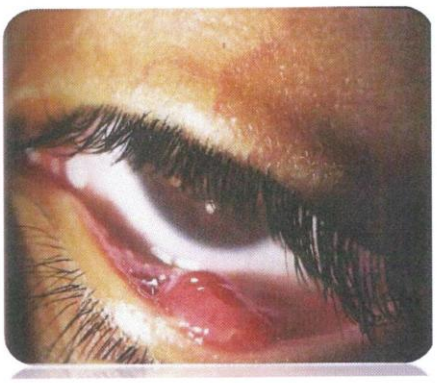
Q10: His friend advised him to use a Bandage, do you recommend this ?why?

- No, as it accumulates discharge allows more multiplication of organism

Case 5: Eye lid mass

A 30-year-old man had a **painless** *lump on his left lower lid* for months. When he thought it was enlarging, he saw an ophthalmologist. His vision was 6/9 OU. A slight rubbery **nontender** mass was found. When the lid was flipped, slight erythyma could be seen at the base of the lesion





Q1: What is the most Probable diagnosis ?

- **Chalazion** (chronic inflammation of meibomain gland).

Q2: Mention the etiology of this case?

- (unknown), but may be:
  Proliferation of epithelium (vitamin A deficiency) + Dry secretions → Duct obstruction → retained secretions of (**meibomian glands**) → irritate and excite *granulomatous reaction*

Q3:Enumerate 3 predisposing factors of this condition?

- Blepharitis
- Vit. A ↓↓
- Seborrehea
- DM
- Erorr of refraction

Q4: How Many MGs At the Lower lid ?

- 20
- And 30 At Upper lid

Q5: What is the DD of this Case ?

- From other causes of lid swelling (masses in lid)
  1-Stye
  2-Hordeulum internum

They are acute inflammations, painful &tender &
ttt: antibiotics & incision
but **Chalazion** chronic inflammation not painful , not tender & not related to lashes & not pointing

3- Adenoma or Carcinoma of Meib, gland

Q6: What is the Best treatment for this condition?

- Surgical Excision

Q7: If this mass reccur after treatment , What to do?

- Excisional biopsy , to exclude malignancy

Q8: Mention non surgical treatment ?

- Lid massage with Hot Fomentation
- Antibiotic :prevent 2ry Bact. Inf
- Steroids: ↓ inflammation

Q9: Enumerate 3 complications of this case?

- Infection→ Hordeelum internum
- Projection→ Marginal chalazion
- Mechanical→ Ptosis , Ectropion
- Meibomian Cyst

N.B
No Surgical excision in Stye & Hordeulum internum in order not to cause **spread** of infection

Case 6: proptosis

A 45-year-old lady developed *foreign body sensation, photophobia and tearing* in her left eye. Visual acuity was normal. Examination revealed proptosis and lid retrraction on the left. There was resistance to retropulsion of the globe on palpation through the lids on both sides. Slit-lamp examination with fluorescein staining of the corneas showed superficial punctate corneal erosions inferiorly OS. Past history revealed treatment for Graves' disease 3 years ago. Frequent use of artificial tears relieved her symptoms for a few months She then had a recurrence. She also reported *diplopia when reading*. Reexamination disclosed a slight reduction in visual acuity OS, and increased proptosis. She had *limitation of elevation and depression of the left eye.*

Q1: What is your diagnosis ?

- ***thyroid ophthalmopathy (Dysthyroid eye disease)*** complicated e **exposure keratitis**

  Etiology: Endocrine

Q2:Mention one Method to measure degree of proptosis?

- ***Simple ruler,***
- ***Hertel's Exophthalmometer (better)***

  How: . distance () lat orbital margin, corneal apex, Normally =10-20mm

Q3: Mention the DD of the case?

- **From other causes of proptosis**
  - Congenital
  - Traumatic
  - Inflammatory
  - Vascular & parasitic
- **From other corneal lesions :corneal ulcers**
  - **Infective** (bacterial, viral, fungal & protozoal).
  - **Non-infective** (photophthalmia & keratomalacia).

Q4: Mention the non-surgical treatment of this case?

- corneal protection (Atropine & Artificial tears)
- steroid" after ttt of corneal lesions
- Radiotherapy
- Immunosuppressive

Clinical features

1- Eyelid Signs

A- UL retraction (staring look)

B- UL lag

C- Infrequent blinking

2- Exophthalmos

A- Dysthyroid eye disease is the commonest cause of both bilat, unilat. proptosis.

B- Exposure of cornea → ulceration, blindness

3- EOMs (MR &ciliary)

A- Weakness & diplopia→ D2 edema & accumulation of muco-polysaccrides

B- Restricted movements in various directions

4- Infiltrative Ophthalmopathy

5- Optic neuropathy

a ↓ of central vision

b. Defective red-green colour appreciation

A. Ophthalmoscopy:-

- Disc oedema, - Optic atrophy

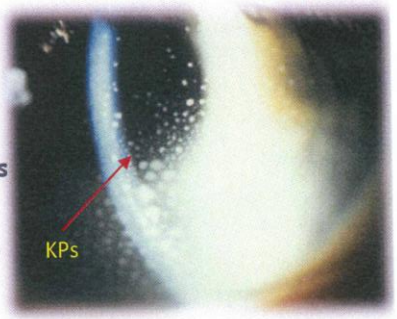
B. VF defects: - *central, or Paracentral scotoma*

Q: what kind of surgery we use & when we interfere surgically

- EOMs surgery – tarsorrhaphy (if Diplopia in 1ry position)

Case 7: Uveitis

A 56-year-old woman presents with a *red painful left eye* she has had for 3 days. She has been very sensitive to light since the pain began. She denies any trauma. She had past history of *difficult breathing*. Her examination is significant for a *visual acuity of 6/6 OD and 6/36 OS*. Her left eye has ciliary injection. She has cells and flare in the anterior chamber and large "mutton fat" KPs on the corneal endothelium OS. Numerous cells are present in the vitreous and the view of the retina is hazy.



Q1: What is the most Probable diagnosis ?

- acute irido-cyclitis (ant uveitis)
  acute on top of chronic & TB

Q2: Explain the pathogenesis of this case ?

- Mutton fat → Granulomatous (TB)
- KPs → inflammatory cells from dilated iris & CB vessels
- Aq. Flare → (Plasmoid aq = ptns = Exudate) d2 leakage of ptns through damaged bl . vs (detected by Slit-lamp)
- Aq. Cells → inflammatory cells if numerous → Hypopyon

Q3: Which of the following occur first:

- Aq. Flare (√)
- Aq. Cells

Q4: Define Aq. Cells ? or Metion the type of Aq. Cells ?

- There are Inflammatory cells if numerous → Hypopyon

Q5: What does the Arrow on the pic. represent ? & Mention its site ?

- KPs
- Posterior Surface of Cornea (On Corneal endothelium)

Q6: Enumerate 3 important investigations to do for this case?

- Chest X.R
- Tuberculin test
- A.C & Vitrous Aspiration for Cytology

Q7:How to differentiate this case?

- From other causes of "red painful eye"
  1- acute congestive glaucoma
  2- iridocyclitis
  3- conjunctivitis
  4- corneal ulcers
- Ciliary injection from conjunctival injection

Q8: Mention 3 Complications of this case?

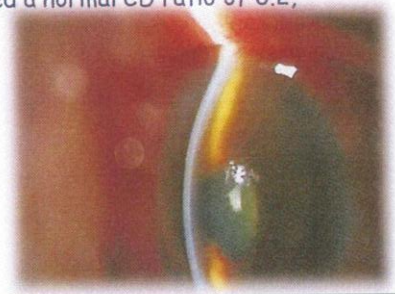
- Synechia Formation
- 2ry Glaucoma
- Complicated Cataract
- Cystic Membrane
- Endophthalmitis & Panophthalmitis
- Complication of long standing uveitis
  * Rubeosis iridis
  * NVG
  * Band Shaped Keratopathy

Q9: What are the lines of treatment ?

- Steroids
- Atropine
- NSAIDS
- Immunosuppressive drugs

case 8: Glaucoma

A 56-year-old woman presented to the emergency department with **sudden loss of vision OD**, intense eye pain, headache, and vomiting After Going to the **Cinema** with her family , There was no history of any eye problems except for glasses for hyperopia. The visual acuity was counting fingers OD and 6/6 OS. The right eye showed circumcorneal injection, diffuse corneal haze, shallow AC and a mid-dilated, fixed pupil. The lens was clear. The left eye was normal except for a shallow AC. The IOP was 46 mmHg OD and 14 mmHg OS. Fundus examination and gonioscopy OD were not possible because of the corneal haze. Examination of the OS revealed a normal CD ratio of 0.2, and gonioscopy OS revealed a narrow angle.



Clinical features

Age: (40-50) **sex:** ♀ > ♂ ☺

Visual acuity: (rapid ↓VA due to corneal oedema count finger)

Ocular pain: **Bursting** **Headache &Vomiting** (inj better than oral ttt)

Cornea: oedema and haze **AC:** very shallow **Pupil:** semi-dilated, irreactive, vertically-oval

IOP: normal (12-20mmHg) **CD ratio:** normal (0.2) **Gonioscoy:** narrow angle

Q1: What is your diagnosis ?

- **Acute Congestive Glaucoma**

Q2: Why did watching Cinema precipitated that attack ?

- Dark room → pup dilatation → Angle closure →↑IOP
- Stress → ↑Adrenaline → pup dilatation → Angle closure→↑IOP

Q3: She reported Past Hx of glasses, What error of Ref she has?

- Hypermetropia (Hyperopia) طبعا هي هنا موجود في السيناريو

Q4: What is the essential (main) line of ttt of that case?

- Surgical ttt

Q5: When to interfere surgically ? & mention the operations ?

- **After 24 hs**
- If attack is 24h recent + no PAS → Iridectomy
- If attack > 24h + PAS → External fistulizing operation (SST)

Q6: Mention 1 type of ED never used at that case? **Atropine**

Q7: Mention Other error of Ref causing glaucoma ? **Deg. Myopia**

Q8: Mention 3 different Medications used before surgery ?

- Hyperosmotic agents: (Mannitol)
- Miotics → Pilocarpine 2% every 30min, until pupil constrict
- Carbonic anhydrase inhibitors: Oral or IV
- Analgesics , anti-emetics & BB

Q8: IOP in lt eye 14mmHg & CD ratio normal Do you recommend ttt for that eye ?

- Yes , **Prophylaxis** → **Pilocarpine 1%**
  → **laser iridotomy**

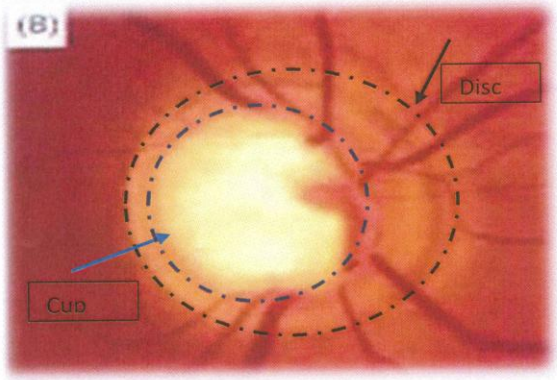
Q10: Mention the DD of the case?

- From other causes of **"red painful eye"**
  iridocyclitis - conjunctivitis - corneal ulcers
- From other causes of **rapid ↑ IOP**: glaucomatocyclitic crisis - phacomorphic - phacolytic
- Other causes of **"sudden unilateral impairment of vision"**
  Massive retinal & vitrous hge - Acute optic neuritis
  Retinal detachment - CRAO -CRV thrombosis

Q11: Do you expect cupping ? No , cupping ↑IOP & longer time

Case 9: Open angle glaucoma

56 years old man presents e *gradual painless diminution* of vision apart from mild conjunctivital injection . the ant segment reveal no abnormality *IOP in lt eye 34 &in Rt eye 28.* Gonioscopy show more than 4 different structures.



Q1: What is the most Probable diagnosis ?

- **Open angle glaucoma**

Q2: Which part of the eye examined by gonioscopy

- angle of AC

Q3: Enumerate 2 divices used for measuring IOP?

- Indentation tonometer (Schiotz).
- Applanation tonometer (Goldman).
- Air puff tonometer.

Q4: What is the normal IOP ? When to diagnose glaucoma ?

- **Normal IOP** = 10 :22 mmHG
- **It's diagnostic** when exceeds 26 mmHG

Q5: What does the area bounded by the interrupted outer Black circle represent?

- Optic Disc

Q6: What does the blue arrow Point to on the pic?

- Optic Cup

Q7: What is the Main line of treatment?

- **Medical Treatment:**
  - Miotics (pilocarpine).
  - Adrenergic agonists (epinephrine).
  - Beta-blockers (timolol).
  - Prostaglandin analogues (xalatan).
  - CAIs (acetazolamide).

Q8: Mention the risk factors of this condition ?

- Positive Family Hx
- Race →more in black
- Ocular dse → Myopia, CRVO & R. Pigmentosa
- Systemic dse → DM, Migraine
- Hypertension (Ocular)

Q9: Mention early changes of Optic disc?

- Large cup/disc ratio (0.4-0.7)
- Asymmetry of cups on both eyes
- Splinter hge
- Vertical Notching
- RNFL defect

Q10: Mention late changes of Optic disc?

- Large cup/disc ratio > 0.7
- Deep e' undermined edges
- Arterial pulsation in sever cases
- Nasal shifting of Bl. Vs
- Post glaucomatous Optic Atrophy

Q11: what are the surgical treatment ?

- **Argon Laser trabeculoplsty:**
- **Surgical techniques:**
  - External fistulizing operation (SST)
  - Glaucoma device (Ahmed valve).
  - Ciliary body ablation.

Q12: What are the Causes of Cupping?

- Mechanical → ↑ IOP
- Ischemic → Sclerosis of vs suppling I disc
- Apoptosis
- Genetic or Auto-immune free radicals

Q13: Mention 2 Visual field defects?

- Paracentral scotoma.
- Arcuate scotoma (Bjerrum).
- Double arcuate scotoma with Nasal step of Roenne.

case 10: lens

A 68 year-old farmer complains of gradual painless diminution of vision in his left eye over the past 9 months. His best corrected vision is *6/18 right eye and HM left eye*. His examination is significant for a moderate *nuclear sclerosis* in his right eye and *dense cataract* in his left eye. The rest of his examination, including corneal examination, pupillary reaction and a B-scan of his left eye, is within normal limits. Now he presents with severe pain in his left eye. The eye is injected. The cornea is edematous with shallow AC. IOP pressure is 14 mmHg in the right eye and 37 mmHg in the left eye.

Q1: What is your diagnosis ?

- **Intumescent Cataract complicated by phacomorphic closed angle glaucoma**

Q2: Mention the DD of the case?

- **From other causes of "red painful eye"**
  - 1- Iridocyclitis
  - 2- Conjunctivitis
  - 3- Corneal ulcers
- **from other causes of "gradual diminution of vision"** فورا
  - 1-POAG
  - 2-High myopia
  - 3-Optic atrophy
  - 4-Retinopathies
  - 5-ARMD

Q3: Mention The treatment of such case ?

- lowering IOP by Anti-glaucomatous drugs (Pilocarpine)
- Lens Extraction & IOL Implantation

Q4: Enumerate sites of new IOL Implantation ?

- Bag supported Sulcus supported
- Angle fixed Iiris fixed

Q5: Explain the pathogenesis of the case?

- Rapid breakdown of lens ptns → Rapid increase in Osmolarity → exaggerated hydration → pupillary block

Q6: Why intumescent Not occur in Congenital Cataract?

- As Congenital Cataract is **Stationary** ثابت (progression مش بيحصله)

Q7: What do you expect about iris shadow & Red Reflex in this case?

- Absent RR because lens is densely opacified.
- Absent Iris shadow because lens is opacified and swollen

Q8: Mention Other lenticular causes of glaucoma ?

- Phacolytic glaucoma d2 hypermature cataract
- Phacoanaphlactic glaucoma d2 trauma or surgery
- Pupillary block glaucoma d2 lens dislocation

case 11: medical ophth

A 40-year-old woman had had *diabetes* for 20 years. On her annual ophthalmic visit, *hard exudates* were noted together with *retinal edema* adjacent to the left macula. Her vision was 6/6 in the right eye and 6/9 in the left eye. Laser treatment was recommended

Q1: What is your diagnosis ?

- **diabetic retinopathy** e' macular edema
  stage : background exudative

Q2: Mention the DD of the case?

- **from other retinopathies:**
  1-hypertensive retinopathy
  2-retinitis pigmintosa
- **from other causes of Hard exudate**
  1- hypertensive retinopathy
  2-toxemia of pregnancy
  3-RF retinopathy
  4-papilledema
  5-ARMD (Age Related Macular Degeneration.)

Q3: Mention other finding at the picture ?

- Hard Exudate
- Micro-anyreusm
- Macular edema

Q4: Explain Pathogenesis of this case?

- Micro-vascular leakage: loss of pericytes → disturbance of blood - retinal barrier
  Resulting in :- Edema - Exudate &
  Micro- anyreusm (Localized capillary distension)

Q5: Mention investigation done to detect ischemic changes?

- Flurorescin angiography (FA)

Q6: Treatmentof that case?

- control of DM
- regular fundus examination (Follow up of diabetic pt)
  1-e` out DR → yearly
  2-e` mild non proliferative DR → every 9m
  3-e` mod & sever → every 4m
- Argon laser photocoagulation

Q7: Do recommend Pan retinal photoCoagulation for ttt of that case ?

- No, because there is no new vessels formation

Q8: Enumerate 2 complications of this case?

- Persistent vitreous hemorrhage.
- Retinal detachment.
- Opaque membranes.
- Rubeosis, iridis, which may lead to neovascular glaucoma.

Q9: Enumerate clinical presentations of diabetic macular edem?

- Focal.
- Diffuse.
- Ischemic.
- Mixed.

Case 12: Trauma

A 5 year-old-boy splashed his face with household ***detergent*** accidentally. He complains of severe photophobia and foreign body sensation in both eyes. He has marked conjunctival chemosis. His corneas are edematous. The anterior chamber details structure are visualized. His IOP is within normal

Q1: What is the most Probable diagnosis ?

- **chemical burn injury (most likely alkali)**

Q2:How to differentiate this case?

- **From other types of chemical burn**
  - *lime burn*
  - Acid battery fluid (Toilet cleaner)
  - Alkali burns (detergent & potash)
  - aniline dye
- **From other traumas**
  - IOFB & penetrating traumas

Q3: What is the ideal time for interference (treatment) ?

- Immediately 1st aid measures (treated as Emergency)

Q4: What is the first line of treatment?

- Irrigation e' Water or Saline, at least 1hr (if lime picking of particles before irrigation .
- Antidote: (EDTA 1%: used for all)
  - **Alkali** burns: Boric acid 4%, Vinegar **(ttt of this case)**
  - **Acid** burns: NaHCO3 3%
  - **Lime** burns: **Neural Ammonium Tartarate** 10%
  - **Aniline (Hair) dye** burns: **Tannic acid**, Glycerol, dilute Alcohol

Q5: If Both Chemicals (Alkali & Acid) are within his reach which one is dangerous? Why?

- Alkali burns (detergent): more severe > Acid burns because of rapid penetration through cornea, AC → combine e' cell membrane lipids → disruption of cells e' necrosis of tissues.

Q6: Explain Why Acid burn is less sever than Alkali or lime burn?

- As it coagulates & percipitates tissue Ptns at epithelial level → physical barrier & buffer effect

Q7: What is he Most Serious Chemical burn &Why ?

- **Lime burn** , because Lime (CaO), when combined with water of tears & tissues → Ca(OH)2 resulting in severe heat, caustic effect penetrating deeply.

Q8: The boy improved then after 2 months he developed diplopia at both eyes, what is the cause of diplopia ?

- **Symblepharon**

Q9: Mention the complications (delayed effect) of chemical burn?

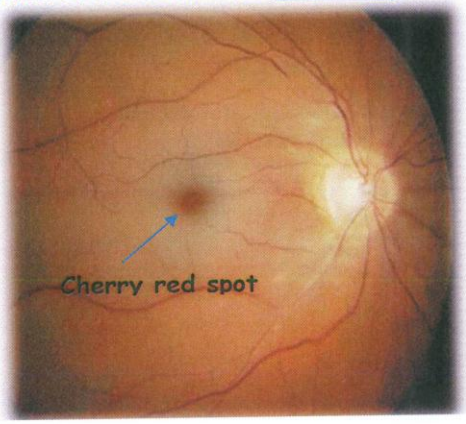
- 2ry Glaucoma → d2↑↑ IOP & Fibrosis of aq. Vein
- Small Corneal perforation , Xerosis & Corneal scaring.
- Symblepharon , Lagophthalmoth
- Cicatricial Entropion , Ectropion & Trichiasis

Q10: Enumerate Other lines of treatment ?

Mild to Moderate exposure	Severe exposure
Antibiotics: topical **Steroids**: topical **Cycloplegics** & Analgesics	**Debridement** of necrotic tissue **Rodding** → ↓ symblepharon. **Tarsorrhaphy**: if lagophthalmos

Case 13: Retina

A 64-year-old woman was watching TV when she noticed that her *vision had become "dim"* in her left eye. She felt well otherwise and had no pain. She came to the emergency room.
Vision was limited to *light perception* in the left eye, but right eye was 6/9. There was a left *afferent pupiullary defect*. The fundus of the left eye showed *narrowed vessels*. Most of the retina was *abnormally pale*, and the macula showed a "*cherry red spot*".



Q1: What is your diagnosis ?

- **Central retinal artery occlusion** in lt eye

Q2: Mention the DD of the case?

- **From other causes of sudden unilateral painless impairment (loss) of vision"**
  1- CRAO & CRVT
  2- Massive vitrous & retinal hge
  3- Acute optic neuritis
  4- Retinal detachment including macular are
- **From other causes of " cherry red spot"** QQQ
  1-commotio retina
  2-quinine poisoning
  3-cerebromacular degeneration

Q: Enumerate causes of this disease?

- Thrombosis.
- Embolism.
- Arteritis.
- CRA spasm.

Q: At which level CRAO occurs?

- At level of the lamina criprosa.

Q: Mention other cause for RAPD?

- Optic neuritis.

Q: Explain presence of cherry red spot at macula against the rest milky white retina?

- The macula receives its supply from intact choroid, thus retaining its red color against rest of retina which is milky white due to coagulative necrosis

Q3: when you should start Treatment & why?

- Start ***immediately***.
- To : ↓ IOP → dilate artery → release obstruction.

Q4: Mention Lines of treatment of that case?

- Lie flat Pt → (*Carbogen mixture*)(*amylnitrate*) Inhalation
- Ocular massage → ↓ IOP
- Acetazolamide 500 mg, IV → ↓ IOP
- AC paracentesis
- Streptokinase IV → useful in 1st 24hrs
- Cause: may be d2 life-threatening disease as cardiovascular disease, or emboli

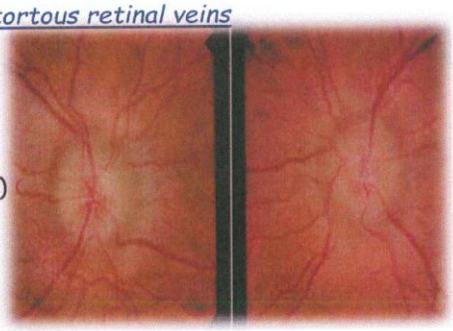
- VA: Severe impairment up to no PL, except in Pts e cilio-retinal artery (15%) has only tubular field
-Pupil: dilated with loss of direct light reflex (RAPD) and preservation of consensual
- Arteries: attenuated (narrowed) thread- like

Case 14: Optic Nerve

A 35-year-old obese lady noted *loss of vision* in both eyes *lasting seconds* after pending over to pick up a box. She developed a headache 2 weeks earlier.

On examination, visual acuity was 6/6 in both eyes. Her visual *fields were constricted* in both eyes

Fundus examination revealed; *bilateral optic disc edema* with *dilated and tortous retinal veins*



********** key answer **********

Diagnostic Features

Bilaterality

Field changes. (*Constricted - scotoma to blue - enlargement of blind spot*)

diagnosis : **papilledema**

causes :

1-↑ **ICT** d2(Inflammatory- Vascular: subarachnoid Hge- Pseudotumour Cerebri- Neoplasm: cerebral tumours)

2-**Systemic** diseases (malignant *Hypertension*- severe *Anaemia & Polycythemia*)

3- **Local diseases (ocular)**,

orbit Unilateral Papilloedema (CRVO - hypotony - Uveitis- orbital cellulitis & proptosis) Q

Differential Diagnosis : **from**

1-papillitis

2-pseudo-papilledema

3-unilat disc swelling

The disc is projecting

edge: hazy

cup: filled

disc: elevated

I) ***Papillitis:***

	papilledema	papillitis
- sm of ↑ ICT	√	×
- Bilaterality	*Bi*	*Uni*
- Pupils	normal	*RAPD*
- Course	↑ Up to 9-D	↓ < 3-D
- Disc Swell	normal	Dust-like opacities
- Vitreous	normal	affected early
- Vision	*Enlarged blind spot*	*Central scotoma for R, G*

II) ***Pseudo Papilloedema:***

Causes	Difference from Papilloedema
- Drosen bodies of disc - Opaque nerve fibers - Bergmeister papilla - High hypermetropia	- swelling < 2-D - No .venous engorgement .retinal edema, exudates, hge .enlargement of blind spot

III) ***unilateral disc swelling (VIGO)***

1-CRVO

2-Ischemic optic neuopathy

3-Grave's dse

4-Orbital tumours

5- High Hypermetropia

Treatment: Relieve the Cause

✈ **What are the investigations done for this case?**

- ***Ophthalmoscopy***: to examine fundus
- ***Perimetry*** : to detect visual field changes
- **Brain *CT&MRI***

✈**What is the Complication (end stage) of this disease?**

- Post-papilledemic (2ry) optic atrophy.

Case15:Lacrimal Sac Lesion

A 60-year-old woman complained of tearing and pain in her right eye. She had no history of trauma or surgery of the eyelids, nose or sinuses. She had tearing and discharge for several months. Recently she had developed a painful red lump near the right inner canthus. Examination showed her vision to be 6/6 OU. There was an erythematous swelling over the right lacrimal sac.

Q1: What is the most Probable diagnosis ?

- Acute Dacryocystitis

Q2: Mention the Causative Organism of that dse?

- Usually Staph. Aureus (from conjunctival or nasal infection)
- Pneumococci and Strept.

Q3: Mention the Predisposing factor of this case ?

- NLD obstruction

Q4: Enumerate 3 Complications of this case ?

- Chronic dacryocystitis
- Mucocele → Pyocele → Lacrimal fistula
- Orbital cellulitis → Optic nerve Atrophy
- CST → (as it's an abscess in dangerous area of face)

Q5: What is the proper treatment for this case?

during Acute phase	*after Acute attack subsides*
- Hot fomentations - Antibiotics: systemic and topical - Lotions: to clean pus - Pus = Incision & Drainage	- DCR + Fistulectomy if needed

Examination and testing
- Probing ??
- CT
- Dacryocystography

Q6: What is the DD of this Case ?

- From Skin Cellulitis, infected Sebaceous Cyst
- From Acute Ethmoiditis X.ray , patant passage , pointing
- From other causes of tearing
  - Epiphora & Lacrimation
- From Chronic Dacryocystitis by **Regurge test** (+ve)

Clinical Picture Of Acute Dacryocystitis

- ***Symptoms:***
  - Fever
  - Severe pain: dull, then throbbing
  - Epiphora
- ***Signs:***
  - Marked oedema and redness of skin over sac
  - Tender swelling of lac sac
  - **-ve** Regurge test: d2 congested epith of canaliculi
  - Abscess formation é fluctuation .

Case16: Strabismus

One year-old child referred from her pediatrician for crossed eyes

- ✈ Birth history is normal. (no trauma ✈ no nerve paralysis)
- ✈ Physical health is good.
- ✈ Both right and left eye cross inward each about 50% of the time.

Examination:

- ✈ Child can alternate between right and left eye
- ✈ Refraction reveals minimal **hypermetropia** (physiological)
- ✈ Corneal light reflex asymmetrically centered on each cornea.
- ✈ Cover test shows movement of each eye on examination.

Clinical Features:

Large angle esotropia.
Alternate fixation.
Refraction.
Corneal reflex ✈ Intact
Ocular movement ✈ Normal
Amblyopia?? No fear of Amblyopia as the child can alternate between right and left eye

Q1: What is the most Probable diagnosis ?

- **Congenital esotropia (1ry alternating Tonic esotropia)**

Q2: Mention 2 Complications of this case?

- Ambelopia
- Nystagmus

Q3: When to treat this condition ?

- After 12 months (the case 1 year)

Q4: What is the main treatment ?

- ***Surgical correction:***
  1) Recession of strong MR ms
  2) Resection of weak LR muscle

Q5: If there is Amblyopia , what to do ?

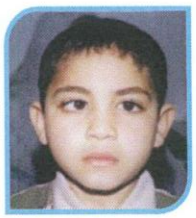
- Treat Amblyopia 1st
  - ✈ occlusion of sound eye → 1- 5 months aiming to improve vision up to (6/18)

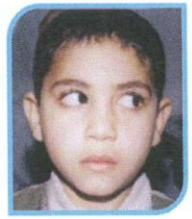
Q6: What is the DD of this Case ?

1. Pseudostrabismus.
2. Accommodative esotropia
3. Congenital 6th nerve palsy

Pseudostrabismus.

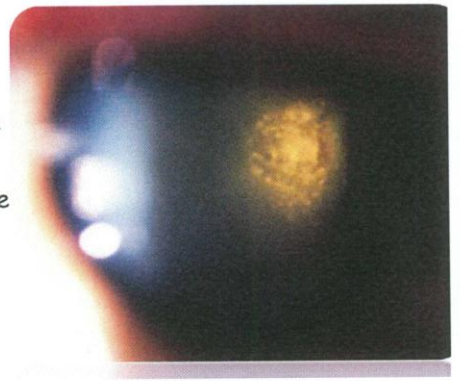
Accommodative esotropia





Congenital 6th nerve palsy

Case17: Errors of refraction



A 68 year-old man complains of **gradual painless diminution of vision in his left eye** over the last year. He is using glasses for correction of **myopia** since childhood. His best corrected vision was 6/60 right eye and 3/60 left eye. His examination is significant for cataractous changes. Cornea and anterior chamber examination is within normal. He has undergone lens extraction in both eyes. His visual acuity is 6/18 in the right eye and 6/12 in the left eye without optical correction.

Q1: What is the most Probable diagnosis ?

- **Myopia**

Q2: Enumerate 3 Causes of this dse?

- ↑ Axial length
- ↑ Curvature myopia (d2↑ Curvature of cornea or lens)
- Ant dislocation
- Index myopia, (d2↑ref index of cornea or lens nucleus)

Q3: Mention other causes of gradual painless diminution of vision?

- POAG
- High myopia
- Optic atrophy
- Retinopathies
- ARMD

Q4: Enumerate 3 Complications of Myopia?

- divergent Squint
- complicated Cataract
- peripheral Choroido-Retinal degenerations,retinal breaks and RD
- Post Staphyloma(only cause)& lens displacement
- Vitreous degenerations: floaters, PVD
- pigmentary Glaucoma & POAG
- Macular complications:
  - Macular hge - Macular hole
  - Fuch's spot (black area at **macula loss of central vision)**

Q5: What is the proper treatment for this case?

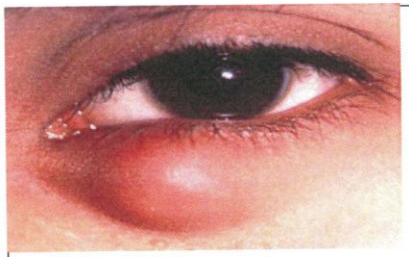
- ***Optical:*** - Glasses (concave spherical (-) lenses)
  - CL
- ***Refractive surgery:*** - Mild: RK, or LASIK
  - Moderate: LASIK(up to -10D)
  - High: phakic IOL implants

Q6: He has undergone lens extraction in both eyes. His visual acuity is 6/18 in the right eye and 6/12 in the left eye without optical correction. What is the Error of Ref. after lens extraction ?

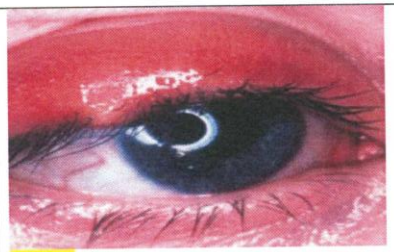
- Hypermetropia

Q7: Enumerate 2 Symptoms the pt represented by ?

- Iindistinct Far vision
- Screwing of EL→ as Pin-hole → ↑ depth of focus
- Defective Night vision (in progressive myopia)
- Musca volitans



CHALAZION كيس دهنى عنده من زمان



STYE دمل طالع منه شعره

DERMATOCHALASIS جلد مترهل

XANTHLASMA حب أصفر على الجلد

RUBBING LASHES / TRICHIASIS
أكثرمن أربعة رموش يحكون فى العين

MADAROSIS
مفيش رموش

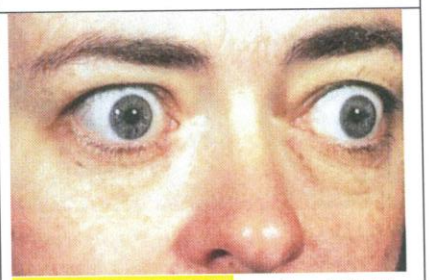
ENTROPION جفن مقلوب لجوه

ECTROPION جفن مقلوب لبره

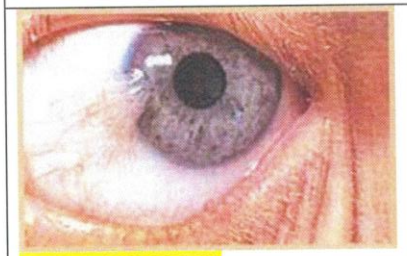
POLIOSIS رموش بيضاء

TYLOSIS

PTOSIS الجفن العلوى مرتخٍ



LID RETRACTION إنت شايف بياض من فوق القرنية

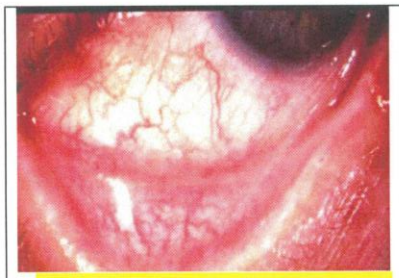


1RY PTERYGIUM
ظفرة ملتحمة شكلها مثلث رأسه إلى القرنية

RECURRENT PTERYGIUM
عمل ظفره قبل كدا و رجعت تانى

PINGUECULA
مثلث أصفر قاعدته إلى القرنية

SYMBLEPHARON
الجفن ماسك فى العين



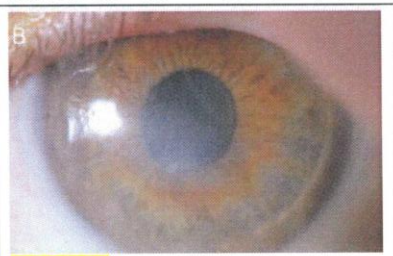
CONJUNCTIVAL INJECTION
أوعية حمرة و واضحة قوى خاصة فى Fornices

CILIARY INJECTION
أوعية حمرة و واضحة قوى حول Limbus

SUBCONJUNCTIVAL Hge
دم سايح تحت الملتحمة

BITOT SPOTS

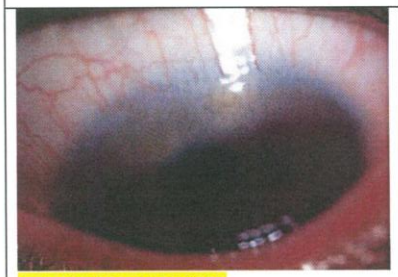
LEUCOMA ADHERENT
عتامة بضاء قوية



NEBULA سحابة لاتراها إلا إذا اقتربت منها ونورت من الجانب

BAND-SHAPED KERATOPATHY

ARCUS SENILIS
حلقة عتامة تحيط القرنية (العجوز)



PANNUS SICCUS
هلال أبيض يحيط القرنية من فوق

KERATOCONUS قرنية قمعية
مخروطية مبظبظة شفافة : لو نظر لأسفل

CORNEAL SCAR

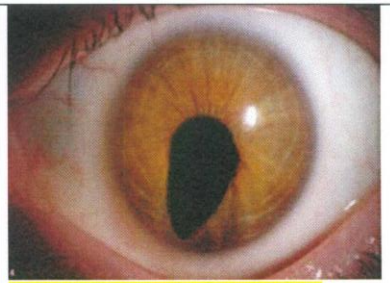
PENETRATING KERATOPLASTY

ANTERIOR STAPHYLOMA

قرنية معتمة و مبظبظة + مبطنة iris

PERIPHERAL (BUTTON HOLE) IRIDECTOMY

جزء من الايرس مقطوع من فوق

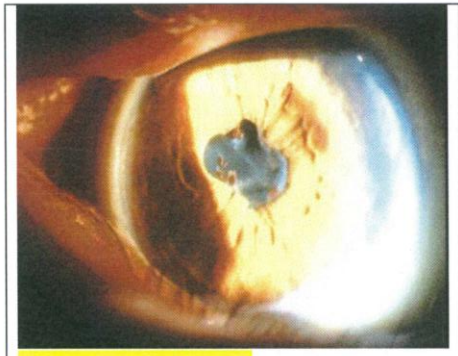


COLOBOMA OF THE IRIS

اسأله هل ولد بها

IRIDO-DIALYSIS

D-shaped pupil



FESTOONED PUPIL

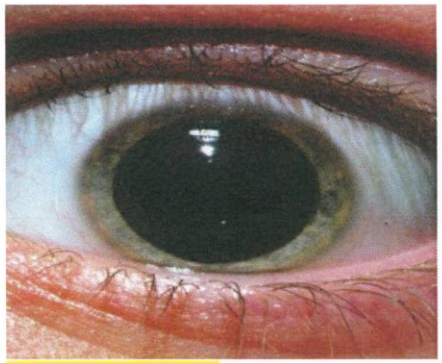
SENILE INCIPIENT CORTICAL CATARACT

مثلثات فى الاطراف

SENILE INTUMESCENT CORTICAL CATARACT

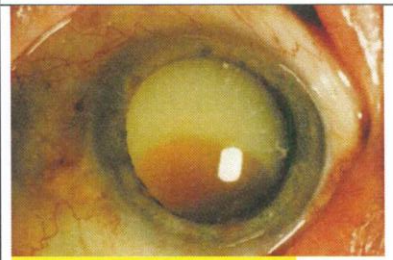
عتامة مثل الصدفة أو قشر سمك - العدسة منفوخة و بتلمع

SENILE HYPERMATURE CORTICAL CATARACT(DRY TYPE) - العدسة منكمشة و منقطه أبيض و أصفر

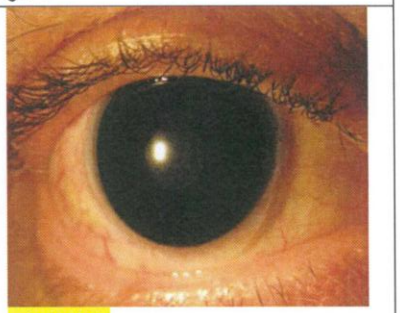


Dilated fixed pupil

SENILE IMMATURE CORTICAL CATARACT



SENILE HYPERMATURE (MORGAGNIAN TYPE) CORTICAL & NUCLEAR CATARACT لبن و النواة البنية غارقة تحت



Aphakia

اسألها: عمل عملية مية بيضا وما زرعش - - صورة واحدة فقط على القرنية

COMPLICATED CATARACT

اسأله عن أمراض يشتكى منها مثل السكر والضغط -
ما اتخبطش - سنه تحت ال ٥٠ سنه -

TRAUMATIC (SUNFLOWER) CATARACT

اتخبط

ANTERIOR POLAR CONGENITAL CATARACT

اسأله مولود بها

- Pseudophakia

AC IOL

- عمل عملية مية بيضه وزرع عدسة
- العدسة كلها امامك

PC IOL

- عمل عملية مية بيضه وزرع عدسة
- مح حركة النور: عينه بتسرج وبتبرق

ANTERIOR CHAMBER INTRA-OCULAR LENS

عمل عملية مية بيضا وزرع عدسة
العدسة كلها امامك -

POSTERIOR CHAMBER IOL WITH IRIS CAPTURE:

عمل عملية مية بيضا وزرع عدسة
مح حركة النور: عينه بتسرج وبتبرق -

After Cataract

- عمل عملية مية بيضا وردت عليه

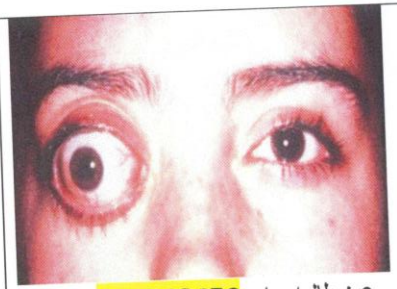
Pupil: - عتامة في

SUBLUXATION OF THE LENS

العدسه متلخلخه من مكانها

ANTERIOR DISLOCATION OF THE LENS

العدسه و اقعه من مكانها



PROPTOSIS عين طالعه برا

LACRIMAL MUCOCELE WITH CHRONIC DACRYOCYSTITIS

LEFT ATROPHIA BULBI (SHRUNKEN GLOBE) - عين عمياء صغيرة منكمشة داخل
الأوربيت واضحة المعالم